

seq. id no 6 = human

Helios 2
mouse + human same
Fig 7

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Claim Amendments for Discussion

1. (Twice Amended) A substantially pure nucleic acid comprising a nucleotide sequence which encodes an amino acid sequence that is at least 80% identical to the [nucleotide]amino acid sequence of SEQ ID NO:6[1, 3 or 5], and which encodes a polypeptide having [a]one or more Helios biological activity selected from the group consisting of: (a) the ability to form a dimer with a Helios, Aiolos or Ikaros polypeptide; and (b) the ability to transcriptionally activate a lymphoid gene.

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2. (Twice Amended) The nucleic acid of claim 1, wherein the nucleic acid comprises a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO:6 [comprising the nucleotide sequence of SEQ ID NO:1, 3, or 5].

3. (Twice Amended) A substantially pure nucleic acid which hybridizes under high stringency conditions to the nucleotide sequence of SEQ ID NO:[1, 3, or] 5, and which encodes a polypeptide having [a]one or more Helios biological activity selected from the group consisting of: (a) the ability to form a dimer with a Helios, Aiolos or Ikaros polypeptide; and (b) the ability to transcriptionally activate a lymphoid gene.

5. (Twice Amended) A substantially pure nucleic acid which encodes a fragment of the polypeptide of SEQ ID NO:[2, 4, or] 6 of at least 60 amino acids in length and which hybridizes under high stringency conditions to a nucleotide of SEQ ID NO:[1, 3 or] 5, wherein the nucleic acid does not cross react with an Ikaros gene or an Aiolos gene.

10. (Reiterated) A vector comprising the nucleic acid of any of claims 1, 2, or 3.

11. (Reiterated) A cell comprising the nucleic acid of any of claims 1, 2, or 3.

13. (Reiterated) A method of manufacturing an Helios polypeptide comprising culturing the cell of claim 11 in a medium to express the Helios polypeptide.

18. (Cancel) The nucleic acid of claim 1, which encodes a polypeptide which forms a dimer with a Helios, Aiolos or Ikaros polypeptide.

19. (Amended) The nucleic acid of claim 1, wherein the nucleic acid encodes a polypeptide having an amino acid sequence of SEQ ID NO:[2, 4 or] 6.

20. (Amended) A substantially pure nucleic acid encoding a polypeptide which differs at 1 or more residues, but not more than 15 residues from SEQ ID NO:[2, 4 or] 6 and which has [a]one or more Helios biological activity selected from the group consisting of: (a) the ability to form a dimer with a Helios, Aiolos or Ikaros polypeptide; and (b) the ability to transcriptionally activate a lymphoid gene.

21. (Amended) A substantially pure nucleic acid encoding a polypeptide of SEQ ID NO:[2, 4 or] 6.--

New claims:

22. The nucleic acid of claim 1, wherein the nucleotide sequence encodes an amino acid sequence that is at least 90% identical to the amino acid sequence of SEQ ID NO:6.

23. The nucleic acid of claim 1, wherein the nucleotide sequence encodes an amino acid sequence that is at least 95% identical to the amino acid sequence of SEQ ID NO:6.

24. The nucleic acid of claim 1, wherein the nucleotide sequence encodes an amino acid sequence that is at least 98% identical to the amino acid sequence of SEQ ID NO:6.

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